ABSTRACT OF THE INVENTION

The present invention provides a solution structure of free RGS4 determined using NMR techniques. The structure includes a Gα binding site and an allosteric binding site. The structural information provided can be employed to identify, select or design agonists and antagonists of RGS4 activity. The invention includes two dimensional and three dimensional models and representations of the structure of free RGS4 based upon structural coordinates that are provided that are useful in the methods described.